Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
AT&T and NTCA Petitions on Transition	)	GN Docket No. 12-353
From Legacy Transmission Platforms to	)	
Services Based on internet Protocol	)	
	)	
Technology Transitions Policy Task Force	)	GN Docket No. 13-5

COMMENTS OF THE
SCHOOLS, HEALTH & LIBRARIES BROADBAND COALITION
(SHLB COALITION)

The SHLB Coalition[1] appreciates the opportunity to comment on the Petition filed by AT&T[2] concerning the treatment of TDM-based services and the transition to broadband networks. Conceptually, the SHLB Coalition supports transitioning our laws and policies to encourage the deployment of open, affordable, high-capacity broadband networks. The SHLB Coalition is interested in working with the new Technology Transitions Policy Task Force announced on December 10, 2012 to make sure that it addresses the critically important broadband needs of community anchor institutions (CAIs).[3] However, we are skeptical that the Petition's sweeping proposal to deregulate the incumbent providers and allow them to withdraw service unilaterally will move the country in the right direction.

To be clear, the SHLB Coalition supports the deployment of affordable, open and high-capacity broadband by ALL broadband providers. The Coalition works with ILECs and other commercial and non-commercial providers to expand the reach of broadband networks so that community anchor institutions can transform their communities and serve the public. Unfortunately, there is an insufficient amount of open and affordable, high-capacity broadband available to community anchor

[1] The Schools, Health & Libraries Broadband (SHLB) Coalition is a broad-based coalition consisting of representatives of schools, health care providers, libraries, private sector companies, for-profit and not-for-profit broadband providers, state and national research and education (R&E) networks, municipalities, philanthropic foundations, consumer organizations and others. All members of the SHLB Coalition share the common goal of bringing open, affordable, high-capacity broadband to community anchor institutions and their communities all across the United States. A list of our members is available at www.shlb.org.
[2] "AT&T Petition to Launch A Proceeding Concerning the TDM-to-IP Transition," Filed Nov. 8, 2012 ("The Petition").
[3] FCC CHAIRMAN JULIUS GENACHOWSKI ANNOUNCES FORMATION OF 'TECHNOLOGY TRANSITIONS POLICY TASK FORCE', Dec. 10, 2012, available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db1210/DOC-317837A1.pdf

institutions today. NTIA has found that anchor institutions are largely underserved,[4] and the FCC's own survey shows that the majority of schools and libraries have an insufficient level of broadband.[5]

The Petition filed by AT&T, however, does not address the needs of anchor institutions, and the Petition appears to assume that replacement broadband networks are already widely available. Wireless companies, however, generally do not or cannot provide community anchor institutions with the capacity and service quality that they need to serve their communities. The Petition's proposals to preempt state regulation of TDM-based services are likely to jeopardize the ability of many anchor institutions to receive the telecommunications services that they need to serve their communities in the absence of new regulations. The Commission should consider other ideas – such as funding Middle Mile capacity with an open interconnection policy – that would be more effective in promoting the transition to broadband.

I. The Petition Rests on Faulty Assumptions, Particularly with Regard to Community Anchor Institutions.

The Petition is premised on a highly questionable assumption – that there are two separate networks of "TDM facilities" and "IP facilities". TDM and IP are transmission technologies that ride on top of the underlying network facilities. Telecommunications and broadband networks often carry both TDM and IP-based traffic. Therefore, we believe it would be counterproductive to try to base any policy changes on this false dichotomy.[6]

Furthermore, the petition rests on another false assumption that wireless 4G/LTE services will provide sufficient bandwidth and services to consumers. Whether or not this is true for *residential* consumers, it is certainly not the case for *anchor institutions*. Community anchor institutions – K-12

[4] "COMMERCE'S NTIA UNVEILS NATIONAL BROADBAND MAP AND NEW BROADBAND ADOPTION SURVEY RESULTS," NTIA Press Release, Feb. 17, 2011 (available at http://www.ntia.doc.gov/press/2011/NationalBroadbandMap_02172011.html).

[5] 2010 E-Rate Program and Broadband Usage Survey: Report, Federal Communications Commission, Wireline Competition Bureau, DA 10-2414, released Jan. 6, 2011, available at http://transition.fcc.gov/010511_Eratereport.pdf. (finding that "nearly 80% of all survey respondents say their broadband connections do not fully meet their current needs.")

[6] It is also noteworthy that the Petition misquotes the Columbia Institute for Tele-Information (CITI) study concerning the amount of CAPEX spent on "legacy" versus "broadband" networks. The Petition states that "By one estimate, ILECS collectively have devoted approximately half of their wireline capital expenditures in recent years to the upkeep of their legacy networks." The Petition footnotes the CITI study from 2009 (Robert C. Atkinson & Ivy E. Schultz, Columbia Inst. For Tele-Info., *Broadband in America: Where It Is and Where It Is Going*, at 29-30 (Nov. 11, 2009), http://www.broadband.gov/docs/Broadband_in_America.pdf). The CITI study, however, does not support the Petition's contention. First, the CITI study gathers data from just the Regional Bell Operating Companies (RBOCs), not, as the Petition claims, all ILECs. Second, the CITI chart shows that the RBOCs *increased* the percentage of CAPEX going to broadband and reduced the percentage of investment in legacy networks virtually every year from 2006 through 2011 (estimated). CITI shows that ILECs have already been increasing their broadband investment under prior policies. These broadband providers may increase their percentage of broadband investment even further in the next few years due to the recent changes in the Universal Service Fund to promote greater investment in broadband. While broadband providers are increasing their percentage of investment into broadband networks under existing policies, these investments do not appear to be targeted at solving the shortage of broadband services for anchor institutions.

schools, colleges, libraries, health clinics, museums, public media, community centers and others – often need bandwidth in excess of 25 Mbps and sometimes 100 Mbps to 1 Gbps, much greater than the capacity offered by the typical 4G/LTE service (often between 8 and 12 Mbps).[7]

Furthermore, the quality of broadband service demanded by anchor institutions is much different than the quality provided by 4G wireless. Anchor institutions often need firewalls, separation of public and administrative channels, filters and security protections that 4G wireless providers cannot offer. Some wireless companies are also putting caps on the amount of data used by each wireless service connection. These caps may be completely inappropriate for anchor institutions whose Internet services are often used all day long by a multitude of users for a variety of intensive uses (such as distance learning, medical monitoring, and job training classes). Thus, while there are exceptions, most CAIs are best served by wireline, not wireless, broadband connectivity.

4G/LTE services are just now being rolled out by the major wireless carriers, and there are several reasons to believe that these technologies will not satisfy the needs of anchor institutions, such as:

a. **Data Drops**: Transmitting medical records, educational testing results, and public safety information require very high data accuracy and security. It is not clear whether 4G/LTE services will satisfy anchor institutions' need for reliable and secure transmission. Weather has been known to affect cell phone calls and data transmission, and AT&T's own web site says that the transmission of 4G signals will vary depending on weather and other factors.[8]
b. **Coverage**: Even in some areas where the major carriers say they provide 4G coverage, even small gaps can significantly interfere with data transmission and lead to dropped calls, dropped data or slow speeds.
c. **Capacity**: Carriers have shown that they do not always supply sufficient capacity to meet surging demand. This is especially true because the faster the bandwidth, the more data users attempt to transmit and consume. As the SHLB Coalition has noted before, anchor institutions need significantly more capacity than residential locations, given the number of users utilizing the network at a given time and the types of transmissions those users are likely to need to complete.
d. **Caps**. Related to the issue of Capacity is the issue of data caps, which most major wireless carriers employ routinely.[9] While the effectiveness of data caps to manage network congestion

[7] Fox, C., Waters, J., Fletcher, G., & Levin, D. (2012). The Broadband Imperative: Recommendations to Address K-12 Education Infrastructure Needs, Washington, DC: State Educational Technology Directors Association (SETDA). Available at http://www.setda.org/c/document_library/get_file?folderId=353&name=DLFE-1517.pdf.

[8] See, http://www.wireless.att.com/coverageviewer/partner.jsp#?type=voice. ("Actual coverage area may differ substantially from map graphics, and coverage may be affected by such things as terrain, weather, foliage, buildings and other construction, signal strength, customer equipment and other factors. AT&T does not guarantee coverage.")

[9] Capping the Nation's Broadband Future, Hibah Hussain, Danielle Kehl, Benjamin Lennett, Patrick Lucey (December 2012) *available at:* http://oti.newamerica.net/publications/policy/capping_the_nation_s_broadband_future

has been challenged[10], the caps nonetheless create an additional barrier for anchor institutions, as these institutions frequently transmit and receive large amounts of data.[11]

Anchor institutions are likely to need wireline connections well into the future, as their bandwidth demands are increasing every year and fiber optic facilities are becoming the most appropriate solution for many anchors. But the Petition's proposed solution – deregulating the provision of wireline service and removing "carrier of last resort" obligations from the wireline provider – would make the shortage of adequate telecommunications services even worse. Rather than proposing financial remedies to reduce the financial burden on the wireline provider and the remaining wireline consumers, the Petition proposes that certain ILECs should be entitled to disconnect those customers altogether. This could have disastrous consequences for anchor institutions that have no alternatives for their telecommunications and high-capacity broadband needs.

For instance, the Petition proposes to eliminate the Section 214 review process and argues that this provision should not apply when a broadband provider is upgrading from a legacy TDM network to an IP network. This could allow a telecommunications carrier to withdraw from a market with no check to make sure that adequate substitute services are available in the area. The Section 214 process, which calls for a review of the impact on consumers, remains an important safeguard to make sure that consumers – including anchor institutions – are not left "high and dry" by a company's unilateral decision to exit the marketplace. We do not mean to say that every company should be required to provide service in each market forever. But under the Petition's proposal, companies would be permitted to pull the plug on the telecommunications services provided to a school, library or other anchor institutions based solely on the ILEC's judgment that an adequate broadband replacement existed. It is entirely appropriate and necessary for an independent agency, such as the state or the FCC, to assess whether or not the ILEC has, in fact, provided an upgraded level of broadband service before it withdraws service altogether.

II. The Commission Should Consider Other Ideas to Stimulate Greater Broadband Investment.

Rather than granting blanket deregulatory relief proposed by the Petition, the Commission might consider other measures to encourage broadband deployment and investment. For instance, the Commission could consider providing USF funding for Middle Mile/second mile facilities with an open interconnection policy to speed the deployment of high-capacity connections into each community. An open interconnection policy would encourage competitive Last Mile providers to deploy additional broadband networks to serve those consumers, knowing that they had affordable back-haul capacity available to carry their traffic back to an Internet peering point.

[10] Id.

[11] See, Connecting America: The National Broadband Plan, Part III, P. 194. ("If ISPs adopt volume caps or usage-based pricing as the model for how broadband should be priced, the FCC should ensure that such decisions do not inhibit the use of broadband for public purposes such as education, health care, public safety, job training and general government uses.")

The Commission could also consider working *with* the states, rather than against them, to consider ways to stimulate greater broadband investment. Several states have taken initiatives to sponsor broadband deployment. The Governor of Illinois recently announced a Gigabit challenge and awarded several grants to organizations to deploy networks in several underserved areas of the state. California has made effective use of the California Emerging Technology Fund.[12] Greater cooperation among the Commission, NTIA, RUS and state and federal agencies could help create an environment that favors investment by all providers, including commercial providers and non-commercial providers.

In addition, the National Telephone Cooperative Association (NTCA)[13] points out an important limitation in the current USF policies that the FCC may want to address. Under the current USF regime, a network that provides both POTS (plain old telephone service) and broadband together may receive USF support, but a network that provides only broadband receives no support. This policy skews the marketplace towards POTS services and away from broadband. Broadband-only network providers should be allowed to seek Connect America Fund support for their broadband networks – this would promote competition and give schools, libraries and other anchor institutions greater choices of broadband providers.

III. CONCLUSION.

AT&T has raised an important question – what measures can the FCC take to promote the transition to broadband networks? Conceptually, the SHLB Coalition agrees that the Commission should continue to examine how to speed the transition to high-speed, high-capacity broadband services. We support the provision of high-capacity, open, affordable broadband to anchor institutions by ILECs and other providers as well, and we stand ready to work with the Commission to meet this unmet need. Unfortunately, we doubt that the solutions proposed by the Petition fit the bill – especially for community anchor institutions. There are several other ideas – such as using USF funding for open Middle Mile/second mile connections – that could be more effective. For the reasons stated above, the SHLB Coalition respectfully asks the Commission to reject the Petition's proposed solutions and to consider the impact on community anchor institutions of any other policy proposals as it seeks to encourage the transition to broadband networks through the Technology Transitions Policy Task Force.

Respectfully Submitted,

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[12] See, http://www.cetfund.org/resources/bestpractices.

[13] See, Petition of the National Telecommunications Cooperative Association (NTCA) for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution, filed Nov. 19, 2012 in RM-Docket 12-353.